

PAKISTAN HEALTH SYSTEM: 2023 AND BEYOND

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Pakistan Health system is in shambles, no matter what successive governments have been telling the public. Pakistan is ranked 164th out of 188 countries on its investment on health and education(1). Pakistan is even behind Rwanda (163rd) in its resource allocation for health and education. There is no wonder then why Pakistan has also one of the worst health indicators in the world. The Universal Health Coverage (UHC) index ranking has improved less than 6% in 30 years (1990-2019)(2). Two hundred and fifty thousand children in Pakistan die every year within their first month of life (3). It makes Pakistan the riskiest country in the world for newborns. Even Central African Republic, Afghanistan, Somalia, Lesotho, South Sudan, Mali and Chad have better survival chances. A baby born in Pakistan has fifty times more risk of dying in first 28 days of his life as compared to a child born in Japan(4). One hundred eighty-six women die while giving birth out of every thousand mothers(5). More than 500,000 new tuberculosis cases per year are added to already huge tuberculosis burden in Pakistan. Pakistan ranks fifth top country in tuberculosis burden globally and ranked fourth in drug resistant tuberculosis. Pakistan has by some estimates highest burden of hepatitis C and around 12 million people in Pakistan are living with hepatitis B and hepatitis C (6,7). Pakistan not only has endemic typhoid, but also has witnessed a major Extremely Drug Resistant (XDR) typhoid outbreak in Hyderabad and Karachi(8).

In just first eight months of 2022, Pakistan reported more than 2 million cases of Malaria more than ever recorded(9).

Pakistan is not only facing an increasing number of deadly and new infectious diseases, but its chronic diseases burden is also either increasing or not coming down significantly. Like many developing countries Pakistan is facing a double whammy. According to the World Health Organization nearly 60% of all deaths in Pakistan are due to chronic diseases. Neonatal disorders, ischemic heart disease and stroke are three main causes of premature deaths in Pakistan. Malnutrition (maternal and child), air pollution, high systolic blood pressure and tobacco are other leading causes of premature deaths and disability(10).

According to the Pakistan national nutrition survey 2018, four out of ten children under five are stunted while 20% are suffering from wasting. Thirty percent children are under weight and ten percent are overweight(11). Both of these numbers are increasing over the years making our new generation susceptible to diseases including premature deaths. Long-term consequences of stunting are low cognitive development, loss in economic productivity(12). Malnourishment is not just an individual problem but countries with this problem losses 3% of their GDP(13). The severe malnourishment in

infancy even when rehabilitated later leaves a lifelong impairment in IQ level(14). Now its time to take pause and just calculate the percentage of kids in Pakistan who are severely malnourished and then understand the gravity of the situation. Are our next generations will be with lower IQ values, and reason of perpetual poverty of their families and this nation?

Whatever little resources health system has after salaries and corruption they goes to clinical care(15)(16) . Pakistan spending on preventive health care is negligible and most of the investment comes from international donors (Shaikh et al., 2013). In last twenty years the Global Fund has invested US\$ One billion for three diseases (HIV/AIDS, Tuberculosis, malaria) in Pakistan(17). In polio eradication, multiple international donors are pouring in hundreds of millions of dollars over years. Just one country has provided close to US\$ 240 million for polio eradication efforts in Pakistan(18). Pakistan approved PC1 (2022-2026) for polio eradication will cost nearly US\$800 million. Islamic Development bank will cover nearly 190 million through soft loans while remaining will be secured by the Global Polio Eradication Initiative (GPEI)(19).

With 80% government of Pakistan health resources geared towards clinical care, we still have a struggling public clinical sector. There is one hospital bed for 1613 person in Pakistan (0.6/1000, while global mean in 2.9)(20). Pakistan's Healthcare Access and Quality Index is 154th out of 195 countries(21). Pakistan strived for universal health insurance

since 2016(22). It was initially targeted only to poor population with limited support. Over the years it has expanded to all sections of population (both rich and poor) and expanded to private hospitals. That made its sustainability challenging as it would have cost more than 62% of national health budget(23).

With no reliable disease surveillance system and even with lack of vital statistics, Pakistan's health system is running in dark with no control on speed or direction. With massive disease burden there is no desire or understanding of importance to invest in public health disease surveillance. Pakistan's disease surveillance systems are mostly funded by international donors, are vertically oriented and fragmented(24). Over the years some steps have been initiated including establishment of Field Epidemiology and Laboratory Training Program, Pakistan with a cooperation between Centers of Disease Control and Prevention (CDC), USA and Federal Ministry of Health. Through FELTP Pakistan, Disease Surveillance and Response Centers (DSRU)s were established to improve surveillance at provincial level in a sustainable manner and improve outbreak detection and response time(25). Some international agencies are also investing in setting up disease surveillance systems in Pakistan but without government own investment of resources there is a little likelihood of having an effective, representative disease surveillance system in Pakistan. With no reliable disease information in country all the investments, interventions and resource allocations

will provide little benefit to health of population.

2023 and Beyond

There are some fundamental questions about the future of Pakistan health system. Is there any chance of improvement in 2023 while Pakistan is going through most difficult times both economically and politically? How could a cash strapped nation realistically make any meaningful change in health of its growing population? Is there a quick way out of this unwinnable situation?

My answer to all these questions is yes. Yes, Pakistan will face ever increasing disease burden of both communicable and non-communicable diseases in 2023. One reason is our uncontrolled population growth which is adding 2% new persons every year(26). In that context even if everything stays same, we still need to add 2% new health services every year. That is a daunting task for any health system. But as COVID-19 has shown recently, some unexpected epidemic or pandemic could easily strain health systems. In these situations when health resources are directed for one disease there is shrinkage of resources for remaining diseases. To ensure, we could improve health of population of Pakistan we have to drastically change our health understanding, resource allocations and interventions. Following are few major steps which could change the direction in short duration without taking away too many resources.

1. **Consider Health Security at par with national security:** Without

health security, national economies could go into ruins and along with it goes national security. If Pakistan wants to ensure that its coming generations are not IQ challenged with reduced productivity, it needs to rethink its health policies. Health policies should not be developed in isolation but in context of national security(27,28). Recent COVID19 pandemic has shown that countries with strong armies had to bow down against a virus. This was a forgotten hole in national security(29).

2. **Population Control is a health issue:** Afraid of religious extremism, Pakistan has practically abandoned its family planning programs. Though now program is now called population welfare program, its continuous failure has resulted in one of the highest growth rate countries straining already limited resources(30). At national level leadership must decide that without taking population control head-on there will be no improved health in current context.
3. **Clean drinking water and sanitation are health issue:** In early twentieth century the USA was able to reduce deaths due to infectious diseases to one fourth (from 800/100,000 to 200/100,000) even before antibiotics and vaccines became available(31). In Pakistan XDR typhoid outbreak in Hyderabad and Karachi started due to unsafe drinking water

available in Hyderabad and then lack of sanitation. In just few months estimated number of patients in two cities was around 40,000 with a cost (direct and indirect) from 2-4 billion PKR. However, health economists and decision makers do not realize that due to inefficiencies in “other” departments, health system is being further strained. By just providing clean drinking water and reasonable sanitation we could decrease 70% disease burden of infectious diseases. That will result in 70% less pressure on clinical services including hospitals. That could result in better managed hospitals and improved clinical care.

4. **Malnutrition is national health and security issue:** If 40% of our next generation will be of low IQ and prone to multiple diseases with lifelong decreased productivity, no number of interventions could help the country. Every field of life will be impacted. We need to tackle this issue on war footing to ensure we have a healthy nation to survive.
5. **Without Health Intelligence there will be on victory against diseases:** Every army in the world invest on military intelligence. No number of hardware could bring victory is there is no intelligence. However, in health we have assumed that we could win this more difficult war without any health intelligence(32). This results not only in our failure in controlling increasing disease

burdens but also wastage of limited health resources. Pakistan decision makers must realize that knowing what is happening in health system in Pakistan is not only their responsibility but will help them tremendously in effective decision making and resource utilization. Pakistan needs to setup its own disease surveillance system by investing best available resources.

6. **Pakistan can't pay for clinical services of more than 200 million people:** Pakistan needs to reprioritize preventive services. There is no way that Pakistan health system could pay for clinical services of such a big population if we do not first prevent people in getting sick. Providing national leadership in preventive disease programs, Pakistan could reduce the number of people requiring clinical services(33). Using 80% of health resources for clinical services also means huge procurements which results in massive corruption with wastage of resources. Decreasing avenues of corruption will mean more resources for health.
7. **Not to forget poor:** Making this transition, health care of poor should be safeguarded. Better running public hospitals could ensure health coverage for most vulnerable population at reasonable costs. Including private hospitals with little supervision in universal health insurance program opens the flood gate of commercialism and

fraud. That also takes away resources away from public sector hospitals. Public sector hospitals will be more sustainable and less costly as they are not made for profit entities.

Pakistan health system is huge and complex. Brining it back to a functional system within our limited resources is definitely a herculean task but it is definitely not impossible. We just need few logical thinkers at the highest level of decision making. I am sure that we have many.

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